

BEST PRACTICES FOR WATER QUALITY TRADING

JOINT REGIONAL AGREEMENT

August 27, 2013

DRAFT Meeting Summary: Workshop 2, June 5 – 6, 2013

Attendees: USEPA Region 10 (EPA R10), Idaho Dept. of Environmental Quality (IDEQ), Oregon Dept. of Environmental Quality (ODEQ), Washington Dept. of Ecology (WA DOE), Willamette Partnership (WP), and The Freshwater Trust (TFT)—See below for individuals

Thank you for your participation and efforts at the Best Practices for Water Quality Trading (WQT) Joint Regional Agreement (JRA) workshop held June 5 – 6, 2013 in Troutdale, Oregon. This memo includes agreed-upon action items, a list of documents provided at this meeting, and a brief synopsis of the meeting.

Action Items	Who	When
1. Review Workshop #2 discussion guides and provide comments.	IDEQ, ODEQ, WA DOE	6/21/2013 (Complete)
2. Send WP and TFT individual state rules, regs, policy, and agreements on confidentiality and FOIA	IDEQ, ODEQ, WA DOE	7/1/2013 (Complete) (HD, OR rec'd)
3. Send WP/TFT examples of TMDLs with concentration limits	IDEQ, ODEQ, WA DOE	7/1/2013 (Complete)
4. Adapt discussion guides to reflect comments, post materials to WP website	WP/TFT	6/28/2013 (Complete)
5. Develop glossary, including definition of various terms related to baseline	WP/TFT	8/8/2013 End of JRA process
6. Finalize comments on JRA 2-pager, send out with notice and intent to post.	WP	6/21/2013 (Complete)

Meeting Documents

The following documents were distributed at this meeting:

- Workshop agenda
- Discussion Guides on the following topics: Communications plan, overall trading program requirements, credit quantification, and credit characteristics
- April 22, 2013 letter from TFT to EPA re: March 15, 2013 NWEA Letter
- Workshop slides

Please contact Bobby Cochran at the Willamette Partnership (cochran@willamettepartnership.org) for copies of these documents.

Meeting Summary

Attending:

- *U.S. Environmental Protection Agency*: Laurie Mann, Susan Poulsom, Christine Psyk, Claire Schary, Bill Stewart
- *Idaho Department of Environmental Quality*: Marti Bridges, Michael McIntyre, Darcy Sharp, Mark Shumar
- *Oregon Department of Environmental Quality*: Greg Aldrich, Gene Foster, Ryan Michie, Ranci Nomura
- *Washington Department of Ecology*: Helen Bresler, Melissa Gildersleeve
- *Willamette Partnership*: Bobby Cochran, Will Forney, Todd Gartner, Neil Mullane, Carrie Sanneman,
- *The Freshwater Trust*: Joe Furia, Karin Power, David Primozech, Kaola Swanson, Tim Wigington

I. Communications

WP first noted the naming conventions associated with the different types of documents being distributed throughout the process: 1) discussion drafts (rough drafts from WP and TFT meant to start the conversation; not reflective of agency positions); 2) discussion guides (refined drafts from WP and TFT, which provide a preliminary set of options to discuss at the upcoming workshop; not reflective of agency positions); and 3) draft best practices (draft best practices meant to reflect agency brainstorming, feedback and commentary at the prior workshop). Attendees' participation in these meetings reflects their willingness to share their expertise, knowledge and understanding of the relevant topics and issues as they engage in the discussions. However, the meeting summaries and documents generated from these workshops should not be interpreted as official agency positions. The draft best practices will be posted on the WP website and shared externally when completed. Attendees decided that each state will develop a JRA communication strategy in a tailored way appropriate to the local landscape. Some states may choose to host open houses or webinars. WP also noted the importance of keeping this Pacific Northwest-focused conversation keyed into national conversations on water quality trading (WQT).

II. Discussion on Baseline* & TMDLs

Note: An action item resulting from this discussion was to create a glossary of terms, specifically including clear definitions of 'baseline' and related terms. It was acknowledged that states may still choose to use these terms differently in their own programs. Note: An action item resulting from this discussion was to create a glossary of terms, specifically including clear definitions of 'baseline' and related terms. Prior to the completion of the glossary, usage of baseline and related terms in JRA documents inconsistent.

A. Definitions of Baseline

Attendees noted that there is currently confusion as to what exactly is meant by the phrase "baseline" when used in various WQT contexts. Attendees appeared to discuss baseline in several contexts: 1) site specific – a) individual site performance (i.e., documenting the current conditions at a site and then subtracting that amount from the total amount of credits generated as a result of restoration); b) pre-existing regulatory requirements that must be met at a nonpoint source site before the nonpoint source can sell credits (in the temperature and nutrient context, this baseline is often associated with affirmative land management practices in in statutes/regulations, and including local ordinance requirements); and 2) TMDL/watershed-wide remedial goals that should be fulfilled prior to allowing WQT (i.e., threshold amounts of nonpoint source excess load that must be addressed overall before individual point sources can trade, or a system potential vegetation target, if interpreted as a requirement). Attendees noted the need to clearly define the various forms of "baseline" and to articulate when/how each form of the term should be used.

B. Accounting for What is Already Required when Setting Baseline

Commented [Schary1]: This is my suggested wording to address a question that Kelly raised – are we representing ourselves or EPA? I think the latter but think we need to be able to engage in discussions without requiring senior management review until there are near-final products.

TW – edited Claire's sentence a bit for readability but kept her suggested edit mostly as suggested.

JF – ok with text as it appears in the document now

TMDLs set watershed-wide goals. State/local laws and regulations govern site conditions at individual sites. Attendees discussed how both of these drivers can impact how much credit an individual site is eligible to generate (i.e., what the baseline is). Attendees agreed that WQT is not a panacea for fixing a watershed, but rather a tool for converting point source technological investment into investments that improve water quality (such as habitat restoration or better land management practices), and accelerating action from the nonpoint source sector (while also highlighting that WQT may be most appropriate in basins where point sources constitute a small percentage of the overall excess loading problem, and may not be an appropriate tool everywhere). Understanding the relatively limited role and scale of WQT, attendees discussed the fact that baseline should proportionately account for existing ~~regulations/laws/requirements~~, but that WQT should not be overly burdened with fixing problems beyond its capacity because those problems exist even without WQT. Attendees also noted that although some TMDLs provide basic regulatory justification for setting baselines that support WQT, most TMDLs were written without WQT in mind, and so there may be some ambiguity as to whether/how much TMDLs (and specifically LAs) establish baseline requirements for generating credits. In addition, some attendees noted that current regulations/laws in most states do not always provide clarity as to what affirmative obligations a landowner is already required to undertake at a particular project site because these obligations are often narrative and unquantified, and because TMDL LAs are usually not parsed out to individual landowners or nonpoint sources.

Understanding these factors, attendees observed that WQT in the Pacific Northwest is a policy choice that may be pursued whereby end-of-pipe controls for point sources without near-field impacts are traded for accelerated and multi-objective conservation actions on nonpoint source lands and associated waterways, and that an appropriate baseline requirement is an important element of that policy choice. Attendees also emphasized that this process is not about developing TMDLs around WQT, but on identifying the essential elements of WQT that can be included within a TMDL to facilitate appropriate WQT transactions. Attendees also discussed the possibility of phasing in higher baseline requirements over time to account for existing (yet difficult to define) ~~regulations and watershed-wide TMDL~~ requirements focused on nonpoint source reduction goals. Such a policy would incentivize early action by point sources (because baseline would be lower earlier on), and may help generate more net environmental gain over time. Attendees did note that if the baseline is ratcheted up too high, it becomes overly burdensome on point sources (i.e. too high a barrier to entry). Most importantly, attendees noted that the various policy decisions and implications for WQT should be expressed clearly in TMDLs and permits, and that clear definitions of “baseline” applicable to WQT in a particular watershed should be articulated. Attendees also noted that in addition to ~~implementing on-land practices on individual parcels of land (such as those funded through WQT)~~, it is important to start thinking creatively about how broader-scale, in-stream actions come into play.

C. Expression of Baseline

Attendees discussed several options related to baseline expression, including site-specific retirement percentages (that is, retiring a portion of the credits generated from a site to represent existing ~~laws/regulations~~, and/or TMDL goals), implementation of a minimum number of specified BMPs at project sites, and implementation of a targeted set of BMPs in priority action areas (noting that these options are not mutually exclusive and could be complementary to each other). Attendees considered fairness (i.e., making requirements as similar as possible for different types of actors) and incentives (i.e., not rewarding those who have done little or nothing; so as to ~~not avoid penalizing~~ those who have already chosen to act), and generally discussed ~~how that~~ baselines should be that are more easily quantifiable ~~so as to can~~ make WQT more transaction-friendly. Some attendees also noted that baseline decisions should be appropriately tied to technical (TMDL-based), practical, and political realities.

Commented [T2]: EPA (Kelly & Claire want this sentence to read as follows:

Understanding the relatively limited role and scale of WQT, attendees discussed the fact that WQT should not be overly burdened with fixing problems that originate outside its purview, such as establishing and achieving Load Allocations in TMDLs because those problems exist even without WQT.

TFT – want to keep text as it appears currently in the text. As stated, it is broader than just TMDLs, and so less controversial.

Commented [T3]: EPA wants this sentence to read as follows:

Understanding these factors, attendees observed that WQT in the Pacific Northwest may be a policy choice for addressing temperature in particular, whereby end-of-pipe controls for point sources without near-field impacts may be traded for accelerated and multi-objective conservation actions on nonpoint source lands and associated waterways, and that an appropriate baseline requirement is an important element of that policy choice.

TFT – ok with text as it appears in the document now. Changed sentence slightly in response to kelly’s feedback, but don’t want to get too temperature focused with the description here

Commented [T4]: EPA wants this sentence to read as follows:

Most importantly, attendees noted that effective implementation of WQT requires clear articulation and coordination of various policy and technical decisions between TMDLs and permits, including identifying the baseline from which credits used in WQT may be generated.

TFT – ok with text as it appears in the document now.

D. The Appropriate Spatial Scale of Baseline Requirements: Basin-Wide or Individual Landowner

With the practical realities of setting a baseline policy in mind, some attendees noted that there needs to be an appropriate balance between encouraging participation by landowners (e.g., not requiring full implementation by all landowners prior to allowing one landowner to trade), and incentivizing group action by a number of landowners (e.g., incentives for referrals and providing publicity to early adopters). Attendees were in general agreement that recommending a general WQT policy that every landowner in a basin would have to meet a predetermined set of threshold requirements (e.g., installing a minimum set of BMPs) before any individual landowner could generate credits would hamstring the flexibility agencies need to respond to local conditions in individual watersheds.

E. Timing of Meeting Baseline

Attendees agreed with the recommendation that baseline requirements may be fulfilled as part of the credit calculation process, and not as a separate, prerequisite step prior to being able to generate credits.

F. Base Year of Crediting/Look-Back Period

Attendees discussed whether actions undertaken by landowners prior to the issuance of the TMDL or reductions required by a point source's permit might be included in the baseline. Participants discussed the benefits of having some look-back period prior to a TMDL or permit being signed where BMPs could be creditable, although for practical, record-keeping reasons, the look-back period should not be too long. Some attendees noted that where a TMDL exists, the base year could be set at the date of TMDL signing, or temporal assumptions within the TMDL analysis (or where no TMDL exists, the date the WQT-based CWA permit was issued). Attendees noted that solid documentation would be required in order 1) to credit any action undertaken during the look-back period, and 2) to determine the current conditions from which credits could be generated.

G. Role of Cost-Share Funds to Meet Baseline

Attendees discussed how other programs around the country have used cost share funds (e.g., CRP, EQIP, state/local funding) to fulfill baseline requirements. Attendees were generally in agreement that cost-share funds should be eligible for meeting baseline requirements. Concerns were raised though that even if such a policy encourages on-the-ground action, it may inadvertently build expectations that all pollution reductions to meet baseline would come with payment.

III. Trading Ratios

Attendees agreed that, as a guiding principle "floor," the trading ratio should always be at least 1:1 ~~(although very rarely, a ratio of less than 1:1 could be appropriate where there is a significant, well-documented environmental benefit that an agency wants to encourage).~~ Attendees agreed that it is important to clearly document the factors underlying a trading ratio, and that the ratios themselves may vary between watersheds. In particular, some aspects of a ratio (i.e., the inputs for calculating the ratios for pollutant delivery, attenuation, and equivalency) may need to be provided at a watershed scale, whereas some factors (i.e., credit retirement percentages, uncertainty ratios, and credit reserve pools) may be more appropriate in a state-wide or watershed-level policy. Attendees also contemplated whether it would be appropriate to build a net environmental benefit component into the trading ratio. Some attendees cautioned that setting ratios too high could make the cost of implementation too onerous to remain attractive to prospective WQT participants. Attendees also discussed that all of these factors may not necessarily show up in the trading ratio, but that they should be clearly accounted for and documented at some or multiple points in the TMDL/permit/state trading policy.

Commented [T5]: Comment from Claire:

I agreed with Kelly that the word "should" negated the need for the phrase in parentheses, and that as stated, it could be misinterpreted or misused. Better to delete it altogether. States can put it in their policies if they have a convincing reason and can put enough caveats on it to avoid misuse.

TFT – we agree with Claire & Kelly. Deleted

IV. Reserve Pool

Attendees discussed whether or not reserve pools are necessary. Originally, some participants expected that point sources would want to manage their risk collectively as do other point sources in different parts of the country, but this desire has not materialized in the Pacific Northwest. Some attendees noted that one difficulty in initiating or managing a reserve pool would be the question of who pays for it. Possible options discussed included funding by point sources via a portion of the trading ratio, funds from a compliance settlement agreement, or other public/private sources. Another unanswered question is who would manage a reserve pool (e.g., the permittee, independent market administrator, a state), and the fate of any unused credits (e.g., would they be retired, returned to point sources, etc.).

V. Credit Quantification

Attendees discussed how to choose appropriate models for BMP quantification and estimation of WQT benefits, and noted that whatever model is used, it needs to be calibrated and validated (using the best available information, such as field data or expert judgment) to provide accurate results for the given context in which it is applied, the right outputs for trading (e.g. relevant units and metrics), and must operate at the appropriate scale and resolution for the water quality constituent. Attendees focused on when it is appropriate to use field-scale and site-specific models, and discussed the time/expense required involved in evaluating new models as they are developed and existing models as they are adapted. In addition to using pre-determined efficiency rates and ranges for well-documented BMPs, attendees expressed interest in direct monitoring when it is possible and not cost-prohibitive, and emphasized that field-scale data collected over time can and should inform modeling in the long term as a feedback loop for adaptive management. Some attendees noted that one approach for striking this balance is to directly monitor a few targeted projects, not for quantifying credits, but to refine pre-determined BMP efficiency rates or model parameters. Attendees generally agreed that the best approach is to first apply pre-determined BMP efficiency rates (if they exist) and refine them over time through targeted direct monitoring. If, however, these rates do not exist and/or are not relevant for a particular pollutant/geography/land cover, models should be used to quantify credits. Attendees noted that if a modeling/pre-determined rate approach is followed, the permit should articulate how the rate/model outputs translate into meeting permit limits.

A. Model Selection

The characteristics of a good model were presented as being: accurate and sensitive, repeatable, transparent, practical, compatible with other models, and well-vetted and documented. Attendees discussed how to streamline the process for agencies modeling water quality trading. A central issue is to ensure that a model is answering the essential question(s). Attendees discussed the potential efficacy of a comprehensive summary of the existing models and their functions, and guidance as to when it is appropriate to use a particular model. Although EPA and private sector resources describing modeling choices exist, these sources are not focused on what is needed for trading (i.e., credit calculation and assessing impacts of trades between specific buyers and sellers). Attendees also explored the importance of version control, proper conceptualization of relevant input parameters, and sensitivity and uncertainty analyses of model results.

VI. Project Site Assessment

A. Identification of Project Site Baseline

Attendees discussed how best to document baseline conditions on a site generating credits. In particular, attendees discussed how far back in time project site practices and supporting documentation should be

provided in order to be eligible for trading. (This also relates to the look-back discussion in the section on establishing the year for credit baselines.) WP provided examples from the Ohio Basin, where programs have faced challenges in obtaining past information about a site because landowners are not yet in the practice of keeping uniform records reaching back three or more years. Some attendees noted that over time, more definite record-keeping periods can be established once expectations are clearly defined for landowners, but in the interim, agencies will likely need to be flexible based on how the credit-generating entity's operation works. Some attendees noted that particular information requirements should be established, but that because trading is not a panacea for other nonpoint source issues, and only a small number of landowners need to participate to make it work, these restrictions need to be reasonable. Attendees also noted the privacy, confidentiality, and potential Freedom of Information Act (FOIA) issues associated with this type of requirement. Participants discussed other potential economic outcomes of setting such BMP restrictions and expressed the desire to discuss this topic again at future JRA workshops.

B. Modeling Future Restored Condition at Site

Attendees discussed the parameters associated with modeling the future credit uplift generated at a site. There were few obvious criteria on how to guide building out future scenarios, since so much is dependent on the site. Attendees agreed that the assumptions underlying future credit estimates must be documented in a way that is verifiable, and that agencies may review the assumptions underlying credit estimates in the future.

VII. Credit Characteristics

Participants reviewed and discussed various characteristics of credits (including time period for which a credit is valid, seasonality, credit renewal, and accounting treatment of credits).

A. Credit Life

Attendees discussed the timeframe for which a credit is valid/usable by a permittee (and noted that this discussion is different from the minimum contract lengths for BMPs with individual landowners). Attendees noted that for some pollutants, it is difficult to break loads apart into seasonal loads, and so it may be necessary to annualize loads. Attendees generally concurred that credits must be generated during the time frame they are going to be used, and that timeframe should be linked to the TMDL and the NPDES permits based on ~~that~~ TMDL or other analysis.

B. When are Credits Released to the Purchaser?

Attendees discussed the realities associated with credit release. In general, attendees liked the idea that all credits should be released when the BMP is performing its full function. However, attendees also discussed how this approach presents challenges for BMPs that take time to mature (e.g., wetland or riparian forest restoration). If no credit is awarded until these BMPs mature in 5 - 10+ years, then there might be a disincentive to use these BMPs because: A) there is a capital outlay upfront and the additional risk and time cost of money may make WQT options unattractive for permittees and project developers; and B) some permittees may need BMPs that get them into compliance sooner than the time period required for the BMPs to fully mature. Oregon's programs have used a trading ratio to account for the time lag between ~~discharges when credits are released upon planting and when riparian forests provide~~ fulling shade benefits. Attendees also noted that this question may be moot if the entity buying credits is on a compliance schedule with enforceable milestones, while also noting that compliance schedules (as traditionally thought of for technological solutions) may not be directly analogous to the trading context. Attendees also spoke in favor of including, to the extent possible, milestones in permits. Attendees

agreed to further discuss these questions at the next workshop.

C. Credit Renewal

Attendees briefly discussed what happens to purchased credits in subsequent credit/permit cycles. Attendees generally supported the idea of renewing credits in subsequent periods to ensure that installed BMPs continue to be implemented, but also supported the notion that those BMPs may not be 100% creditable forever (e.g., as a BMP credit contract is renewed, a portion of credits purchased might be retired as a way to get net environmental benefit). These considerations would need to be discussed in conjunction with trading ratios, phased baselines, etc. The attendees did not resolve this question.

Attendees noted that many structural BMPs have a longer life, whereas others will need to be maintained, renewed, or retired, or may be more variable based on seasonal performance. These factors speak to the idea of the inertia of a BMP (i.e., the level of effort, capital, and labor to start, maintain, and/or end BMP), and those with stronger inertia may be more readily renewed. Another idea to consider is the ease with which a landowner could convert a particular credit-generating land use practice or BMP to another one. Attendees noted that existing laws protecting or retaining structural BMPs (e.g., riparian corridor, vegetation retention laws) vary widely by state in level of environmental protection, and as such, this factor should be considered.

If credits cannot be renewed, attendees worried that some BMPs might be discontinued, and the additional cost to permittees of installing additional BMPs might become cost prohibitive.

D. Accounting Treatment of Credits

Some attendees noted the importance of classifying credits as capital assets, although noted the limited ability of environmental agencies to influence this accounting question. The attendees noted the importance of this question because it impacts a permittee's ability to finance BMPs, bond ratings, and accounting.

VIII. Credit Stacking

A. Stacking Credits

Attendees discussed the concept of stacking, or the practice of generating and selling more than one credit from a single BMP action. Attendees generally did not favor allowing stacking to occur on projects generating water quality credits. WP explained its current protocol of allowing multiple types of credits to be generated from a particular parcel of land, but proportionally reducing the total amount of merchantable credits if one type of credit is generated and sold (e.g. if 50% of salmon credits are sold from a riparian buffer, then only 50% of the nutrient reductions from that buffer are available for sale). The group ~~showed expressed tentative some~~ interest in this approach.

Commented [T6]: We used "some" instead of "tentative" to better reflect the tone of the conversation.

B. Stacking Payments

Attendees discussed whether payments from different sources can be used to pay for credit-producing BMPs. Existing programs treat this question differently. NRCS's policy clarifies that all credits generated from BMPs, even if NRCS funds those BMPs, are owned by the landowner. Other organizations (e.g. Oregon Watershed Enhancement Board) state that the projects they fund cannot be used for mitigation. Attendees generally concurred that funds earmarked for conservation should not be used for generating or purchasing credits that would be used for compliance. Attendees did agree that cost share ~~should can~~

be available to help farmers fulfill baseline obligations.

DRAFT